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10/032,603	10/19/2001	Yoshitaka Nose	81800.0167	8148

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EXAMINER

LEE, CHEUKFAN

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2622

1. Claims 1-20 are pending. Claims 1, 15, 17 and 19 are independent.

2. The specification is objected to because of the following:

Page 7, section 27, line 15 recites "Fig. 9". However, there is no Fig. 9 in the drawings.

Page 9, section 0032, line 1, "document D are fed" should read – document D is fed --.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Kobayashi et al. (U.S. Patent No. 5,826,155).

Regarding claim 1, Applicant's admitted prior art paper feeding apparatus, i.e., automatic document feeder (ADF), comprises a pick roller (page 1, section 0003, paragraph 2, line 3) for transporting documents of different widths of a plurality of document sizes. In the prior art discussion, Applicant states, "To allow the documents of small sizes to be transported straightly, by displacing the separate roller and/or the pick-up roller toward one side of the width direction of the document, the problem mentioned above can be solved." Page 3, third paragraph. The problem being solved

Art Unit: 2622

occurs when “only a part of the pick-up roller and the feed roller are to overlap the document [of a small size]” (page 3, first paragraph). Also in the prior art, one of the side sections of the document transport path is set as a standard line, which side section is interpreted to face in an orthogonal direction against a document transport direction. The standard line is interpreted to be a standard of position adjustment of documents as claimed. As the above statements are understood, the rollers are displaced toward the side that has the standard line (standard of position adjustment of documents). See page 1, section 0003 to page 3, section 0006.

According to the above statements, the pick-up roller is disposed within the smallest document width of a plurality of transportable document sizes as claimed, so that the complete pick-up roller and feed roller both overlap the document of the smallest width.

Applicant's prior art ADF differs from the claimed invention in that the prior art has the standard of position adjustment of documents (standard line) located at the side section of the transporting path, while the standard of the claimed invention is located at one side of an area in which the documents are stacked. The standard line of Applicant's prior art faces in an orthogonal direction against a document transport direction.

Kobayashi et al. discloses a compact automatic document feeder (ADF) having a document device (20) (Fig. 2), which comprises a document tray (22) in which documents of different widths of transportable sizes are stacked. The compact ADF

Art Unit: 2622

has a roller (33 in 30), a roller (34 in 30) and a roller (43) disposed within the smallest document width (B5T) of a plurality of transportable document sizes. The roller (33) corresponds to the claimed pick-up roller since the roller (33) contacts the uppermost document to feed the same (col. 8, lines 50-51, lines 12-20 and 47-55). Since the ADF is compact, according to Fig. 2, the document tray and the document path overlap each other because of the positions of rollers that the transport path extends to above the document tray. See col. 6, lines 1-13.

When the standard line of Applicant's prior art is set to one side of the transport path, one of ordinary skill in the art would have realized that the standard line is also located at one side of an area in which the documents are stacked. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the standard of position adjustment of documents (standard line) such that the standard is located at one side of an area in which the documents are stacked (the document tray), in order to make the ADF compact as taught by Kobayashi et al.

Regarding claim 2, Applicant's admitted prior art further includes a separate roller disposed downstream of the pick-up roller such that the separate roller is located within the smallest document width (page 1, section 0003, third paragraph).

Regarding claim 12, Applicant's prior art ADF apparatus further includes a retard roller contacting with the separate roller. The claimed functions of the retard roller and the separate roller in the case when one document is fed and in the case when at least two documents are fed are inherent functions of the retard roller and separate roller of Applicant's admitted prior art.

5. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Kobayashi et al. (U.S. Patent No. 5,826,155) as applied to claim 1 above, and further in view of well known art.

Regarding claim 4, Applicant's prior art ADF feeding apparatus comprises a document feeding tray having document guides for controlling the sides of the documents stacked on/in the tray (page 1, section 0003, the first and second paragraphs). The guides inherently include a fixed guide.

Applicant' does not specify that (the other) one of the document guides is a movable guide. However, the examiner took Official Notice of the fact that document trays having a fixed guide and a movable guide facing the fixed guide are not novel but well known in the art. One of ordinary skill in the art would have realized the advantage of having a movable guide as a second guide of the tray, which is the flexibility in supporting and guiding the documents in the stacks of documents, especially documents of different width. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the tray in the apparatus of Applicant's prior art in view of Kobayashi et al. with a tray having a movable guide in order to securely support and guide the documents.

Regarding claim 6, though Applicant does not discuss the relative length of the fixed guide of the document tray (page 1, section 0003, the first and second paragraphs), since the invention of Kobayashi et al. is directed to preventing document skew during transportation (col. 6, lines 7-13), one of ordinary skill in the art would have realized that having a relatively long fixed guide of the tray such that the fixed guide

Art Unit: 2622

extends to the proximity of a back end of the document tray in the document feeding direction makes the guide more reliable in securely guiding the document. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a relatively long fixed guide of the tray of Applicant's prior art in view of Kobayashi et al. and well known art such that the fixed guide extends in the document feeding direction to the proximity of a back end of the tray in order to securely guide the document in the feeding direction.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Kobayashi et al. (U.S. Patent No. 5,826,155) and well known art as applied to claim 4 above, and further in view of Kato et al. (U.S. Patent No. 5,700,002).

Regarding claim 9, none of Applicant's prior art and Kobayashi et al. teaches a warp preventing member formed on an inner wall surface of one or both of the guides of the document tray as claimed. However, the concept of having employing such a warp preventing member to prevent paper sheets from being warped in a vertical direction is not novel and is taught by Kato et al. (Fig. 8(a), col. 14, lines 5-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a warp preventing member on an inner wall surface of the fixed guide or the movable guide of the document tray of the obvious apparatus of Applicant's prior art in view of Kobayashi et al. and well known art as taught by Kato et al. to prevent the document from being warped in the vertical direction.

Art Unit: 2622

7. Claims 3, 5, 8, 10, 11, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 15-20 are allowed.

9. The following is an examiner's statement of reasons for allowance:

Dependent claim 3 and independent claims 15, 17 and 19 each require that a distance between the standard, or the fixed guide of the document tray as the standard, and a center of the first feed roller in terms of the orthogonal direction against the document transport direction is longer than a distance between the standard, or the fixed guide as the standard, and a center of the separate roller in terms of the orthogonal direction against the document transport direction. This feature is not taught by the prior art of record. In the closest prior art Kobayashi et al. (5,826,155), the distance between the guide of the document tray (the upper guide in Fig. 2) and the center of the feed roller (41 and 42 in Fig. 1) (which form the first registration means 43 in Figs. 1 and 2) is not longer but shorter than the distance between the guide and the center of the roller (34 in Fig. 1, the left roller of 30 in Fig. 2). Therefore. The closest prior art Kobayashi et al. does not disclose the above claim feature in combination with other limitations of claims 2 and 1 on which claim 3 depends, claim 5, claim 17, or claim 19.

Art Unit: 2622

Claims 16, 18 and 20 depending on claims 15, 17 and 19, respectively, are allowable for the reason given for claims 15, 17 and 19.

Claims 5, 8, 10, 11, 13, and 14 depending on claim 3, directly or indirectly, are allowable for the reason given for claim 3.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kobayashi et al. (U.S. Patent No. 5,819,152) discloses a compact automatic document feeder having rollers disposed within the smallest document width (Figs. 1 and 2).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

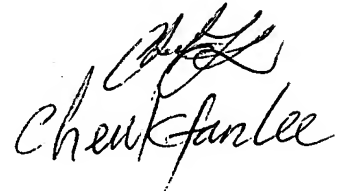
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone

Art Unit: 2622

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
September 15, 2005

A handwritten signature in black ink, appearing to read "Cheukfan Lee", with a stylized flourish above the name.